

Fort Matanzas National Monument
Monthly Resource Management Update
May 31, 2011

Native Bee Survey

Fort Matanzas NM is participating in a nationwide effort to document the effects of climate change on native bee populations. This is a joint effort between the National Park Service and the U.S. Geological Survey- Biological Resources Division (USGS-BRD). Yellowstone NP is the coordinating park for the NPS. Two types of parks are being studied in particular, those with alpine and those with coastal resources. (You can probably guess which category Ft. Matanzas falls into!)

Bees, like almost all non-vertebrate animal taxa, have not been inventoried in most national parks. Although upwards of 300 bee species exist in Florida, most managers would be hard pressed to list more than a couple of the more well-known varieties. This project will provide parks with a baseline dataset regarding which bee species utilize the habitat being sampled, as well as their relative abundance. Since climate change, including projected sea level rise, will impact coastal habitat in particular, this is one of the areas being extensively sampled in the study. Repeated sampling over the long-term will shed light on if and how native bee populations respond to changing climatic conditions.

The method for inventorying bees is fairly straightforward. Two transects are chosen, one in the dunes, and the other in an upland area for comparison's sake. The transects are straight lines, along which colored cups are placed about five meters apart. Soapy water is placed in the cups, and they are allowed to sit out for twenty-four hours. Bees are attracted to the colored cups (they simulate flowers), and once they enter the soapy water they are trapped.

When the cups are collected, the water is drained through a fine-meshed net and any insects are transferred to plastic bags and preserved in an isopropyl alcohol solution. They are then sent to a USGS-BRD lab in Maryland for identification. Five surveys are conducted per year, from the spring to the fall. Two surveys have been conducted so far, and park staff is looking forward to learning which bee species have been buzzing about the park.

Sea Turtle Nesting Season

Sea turtle nesting season officially began on May 14th and will run through August. Park staff have been making daily morning patrols of the park's beach to look for tracks left by female sea turtles the night before. So far none have been seen. (Last year the first nest was laid on 5/30.) Nesting seasons tend to be cyclic, with a productive year usually followed by a less active one. Since last year saw such a huge amount of sea turtle activity, this year may be less dramatic, though nature has a tendency of not behaving according to textbook scenarios!